

1st Annual MEETING ESAC

&

4th edition AI FOR ONCOLOGY and Cancer Research

May 7-8th, 2026, Milan

RESIDENZIALE

ACCREDITAMENTO RESIDENZIALE:

ID ECM: 474832 RESIDENZIALE N. PROVIDER ECM: 1023
OBIETTIVO FORMATIVO: 29- Innovazione tecnologica: valutazione, miglioramento dei processi di gestione delle tecnologie biomediche, chimiche, fisiche e dei dispositivi medici. Health Technology Assessment
NR. DISCENTI: 500 Provenienza presumibile dei partecipanti INTERNAZIONALE
ORE FORMATIVE: 10
N. CREDITI: 3 (residenziale)
ID AIFA: tba
EVENTO PLURISPONSOR

PROFESSIONI ALLE QUALI SI RIFERISCE L'EVENTO FORMATIVO SETTORIALE:

Professione	Discipline
MEDICO CHIRURGO	ALLERGOLOGIA ED IMMUNOLOGIA CLINICA; ANGIOLOGIA; CARDIOLOGIA; DERMATOLOGIA E VENEREOLOGIA; EMATOLOGIA; ENDOCRINOLOGIA; GASTROENTEROLOGIA; GENETICA MEDICA; GERIATRIA; MALATTIE METABOLICHE E DIABETOLOGIA; MALATTIE DELL'APPARATO RESPIRATORIO; MALATTIE INFETTIVE; MEDICINA E CHIRURGIA DI ACCETTAZIONE E DI URGENZA; MEDICINA FISICA E RIABILITAZIONE; MEDICINA INTERNA; MEDICINA TERMAL; MEDICINA AERONAUTICA E SPAZIALE; MEDICINA DELLO SPORT; NEFROLOGIA; NEONATOLOGIA; NEUROLOGIA; NEUROPSICHIATRIA INFANTILE; ONCOLOGIA; PEDIATRIA; PSICHIATRIA; RADIOTERAPIA; REUMATOLOGIA; CARDIOCHIRURGIA; CHIRURGIA GENERALE; CHIRURGIA MAXILLO-FACCIALE; CHIRURGIA PEDIATRICA; CHIRURGIA PLASTICA E RICOSTRUTTIVA; CHIRURGIA TORACICA; CHIRURGIA VASCOLARE; GINECOLOGIA E OSTETRICIA; NEUROCHIRURGIA; OFTALMOLOGIA; ORTOPEDIA E TRAUMATOLOGIA; OTORINOLARINGOIATRIA; UROLOGIA; ANATOMIA PATOLOGICA; ANESTESIA E RIANIMAZIONE; BIOCHIMICA CLINICA; FARMACOLOGIA E TOSSICOLOGIA CLINICA; LABORATORIO DI GENETICA MEDICA; MEDICINA TRASFUSIONALE; MEDICINA LEGALE; MEDICINA NUCLEARE; MICROBIOLOGIA E VIROLOGIA; NEUROFISIOPATOLOGIA; NEURORADIOLOGIA; PATOLOGIA CLINICA (LABORATORIO DI ANALISI CHIMICO-CLINICHE E MICROBIOLOGIA); RADIODIAGNOSTICA; IGIENE, EPIDEMIOLOGIA E SANITÀ PUBBLICA; IGIENE DEGLI ALIMENTI E DELLA NUTRIZIONE; MEDICINA DEL LAVORO E SICUREZZA DEGLI AMBIENTI DI LAVORO; MEDICINA GENERALE (MEDICI DI FAMIGLIA); CONTINUITÀ ASSISTENZIALE; PEDIATRIA (PEDIATRI DI LIBERA SCELTA); SCIENZA DELL'ALIMENTAZIONE E DIETETICA; DIREZIONE MEDICA DI PRESIDIO OSPEDALIERO; ORGANIZZAZIONE DEI SERVIZI SANITARI DI BASE; AUDIOLOGIA E FONIATRIA; PSICOTERAPIA; CURE PALLIATIVE; EPIDEMIOLOGIA; MEDICINA DI COMUNITÀ; MEDICINA SUBACQUEA E IPERBARICA;

OVERVIEW

The AI for Oncology Conference aims to equip participants with a comprehensive understanding of how advanced AI technologies are transforming cancer care and research. As AI innovation accelerates, its applications in oncology are becoming essential across the spectrum of diagnosis, treatment, and research. From integrating diverse datasets, such as multiomics, imaging, and clinical data, to advancing diagnostic precision, AI is enabling the discovery of patterns that traditional methods often overlook.

Participants will explore how AI-driven platforms are improving the integration of data, leading to more accurate diagnostics and personalized treatment approaches for cancers such as lung, breast, and colorectal cancers. Innovations in radiomics and digital pathology will also be highlighted, showcasing how AI enhances the analysis of imaging data and histopathology, particularly for challenging cancers like pancreatic, liver prostate, and head and neck tumors.

The conference will further delve into the role of AI in optimizing clinical research, from designing clinical trials to refining targeted therapies and immunotherapies.

Case studies will illustrate how AI is driving advances in cancer care, including applications in melanoma, NSCLC, and ovarian cancers, where predictive algorithms can identify the best treatment regimens, from adaptive radiation therapy to chemotherapy or immunotherapy dosing. The integration of Large Language Models and Foundation Models offers new ways to analyze clinical data, providing real-time, evidence-based recommendations that assist oncologists in selecting the most effective therapies, whether hormonal treatments for breast cancer or targeted/immunotherapy drugs for NSCLC or unknown primary tumors.

Additionally, the conference will emphasize the need for collaboration across healthcare providers, researchers, and partners, underscoring how such partnerships enhance diagnostic accuracy and treatment delivery for various cancer types, including breast, lung, and gastrointestinal cancers.

The shared knowledge and diverse experiences will enable clinicians, researchers, and technologists to further develop and implement innovative AI solutions in oncology.

Format

The event will cover two days. The speakers will have a diverse background to reflect the spectrum of Artificial Intelligence research (and beyond), from Artificial Intelligence engineering experts, to clinicians and translational researchers, and hybrid figures such as clinical Artificial Intelligence specialists. Faculty members represent worldwide centers of excellence in the field. The attendance is expected to mirror this variety, along with participants with a more specific background in imaging and pathology.

SCIENTIFIC DIRECTORS

Arsela Prelaj,

Esac President

MD, PhD, Medical Oncologist, Thoracic Oncology Unit, Department of Medical Oncology, Fondazione IRCCS Istituto Nazionale Tumori

Head Of Artificial Intelligence for Oncology Lab, Milano, Italy

Jakob Nikolas Kather,

Esac Elect-President

MD, MSc, Professor of Medicine and Computer Science TUD Dresden University of Technology Dresden, Germany

SCIENTIFIC COMMITTEE

Mihaela Aldea, Julien Calderaro, Mireia Crispin, Filippo de Braud, Helena Linardou, Claes Lundström, Vanja Miskovic, Alessandra Pedrocchi, Raquel Pérez-Lopez, Daniel Truhn, Loic Verlingue

SCIENTIFIC SECRETARIAT

Narmin Ghaffari Laleh

Giovanni Scoazec



EVENTS

CONGRESS&COMMUNICATION

CONGRESS VENUE

Politecnico di Milano

Trifoglio Building - Campus Leonardo

Via Bonardi, 9 - 20133 Milano

GENERAL INFORMATION

Cme Provider and Organizing Agency:

Events SRL provider 1023

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OFFICIAL LANGUAGE:

The official language is English

REGISTRATIONS

Registrations fees:

Free for Esac Members www.esac-network.eu/register/

Non Members 183,00 Euro (vat included)

SCIENTIFIC PROGRAM

May 7th, 2026

08:00 Registrations open

08:30-09:30 POSTER SESSION

09:30 Welcome

Arsela Prelaj, Jakob Nikolas Kather

Giovanni Apolone, President OEI, Organisation of European Cancer Institutes

Paolo Corradini, Scientific Director, Fondazione IRCCS INT

Maria Teresa Montella, General Director, Fondazione IRCCS INT

Paolo Corradini, Scientific Director, Fondazione IRCCS INT

Filippo de Braud, Director, Dpt. of Oncology and Hemato-Oncology, Fondazione IRCCS INT

Donatella Sciuto, Chancellor, PoliMi

Alessandra Pedrocchi, Full Professor, PoliMi

Pietro Auletta, IPOP Onlus

*Emanuele Monti, Presidente IX Commissione Permanente Sostenibilità Sociale, Casa e Famiglia
Regione Lombardia*

09:50 AI From patients perspective

Massimo Di Maio, President of AIOM

10:00 AI in Low and Middle income countries

Evis Sala, Minister of Health and Social Welfare of Albania

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10:10 Introduction from ESAC steering committee

Mireia Crispin Ortuzar, Helena Linardou, Narmin Ghaffari Laleh

SESSION 1 plenary

FROM DATA TO INSIGHT: BUILDING RELIABLE FOUNDATIONS FOR AI IN CANCER

Chairs: **Iwona Lugowska, Claes Lundstrom**

10:10 Data- Bias at the source: understanding and mitigating data imbalances in NSCLC and immunotherapy

Vanja Miskovic

10:30 Small data, big trouble: rare cancer bias in AI training sets

Guillaume Jaume

10:45 Discussion

10:55 Technical challenges for implementation and interoperability

Jens Kleesiek

11:15 Lessons from the clinic: data quality pitfalls in AI-based early detection: breast cancer example

Francisco Sanchez-Vega

11:25 Discussion

11:35 *Coffee Break*

SESSION 2 plenary

LLMS AND COPILOTS FOR CANCER RESEARCH AND TREATMENT

Chairs: **Jakob Nikolas Kather, Arsela Prelaj**

11:55 LLMs in cancer research: real-world colorectal cancer examples

Isabella Wiest

12:15 KEYNOTE LECTURE - AI as medical copilot for treatment decision-making

Faisal Mahmood

13:05 Discussion

13:15 *Lunch Break*

SESSION 3 plenary

AGENTIC AI

Chairs: **Luca Agnelli, Mark Carman**

14:15 AI agents integration for tumor boards and IO treatment decision

Federica Corso

14:30 Multiagents for clinical trial matching and phase 1 pan-cancer treatment selection

14:45 SOTA of AI agents in cancer research
Dyke Ferber

15:00 Discussion

PARALLEL - ROUND TABLES

SESSION 4A

CLINICAL IMPLEMENTATION OF AI IN ONCOLOGY

Chairs: **Julien Calderaro, Luca Boldrini**

15:20 AI-driven pathology in clinical practice: head and neck and other cancers example

Alexander Pearson

15:35 DL and risk stratification in radiology application: kidney and prostate cancer
Keno Bressem

15:45 AI in image-guided interventions and surgical decision support in lung cancer disease
Nikolaos Koufos

15:55 AI applications in radiotherapy for oropharyngeal cancer and osteonecrosis
Laia Humbert

16:05 Deploying an AI tool in routine clinical workflow (barriers and breakthroughs)
Mihaela Aldea

16:15 Discussion

SESSION 4B

TRUSTWORTHY AND RESPONSIBLE AI IN CANCER

Chairs: **Evangelia Christodoulou, Fabio Pagni**

15:20 LLMs: How to explain to Doctors and Patients?
Fons van der Sommen

15:30 Evaluation process for generative AI
Jacqueline Lammert

15:40 Explainable AI for doctors: example in breast cancer
Luigi De Angelis

16:00 Navigating regulatory pathways for AI medical devices in Europe and beyond
Carlo Rossi Chauvenet

16:15 Discussion

SESSION 4C

TECHNOLOGY TRANSFER OF AI SOLUTIONS IN HEALTHCARE

Chairs: **Alberto Redaelli, Andrea Villa**

- 15:20 Embedding AI approaches into oncology drug development pipelines
Jorge Reis-Filho
- 15:35 The Italian strategy for AI for healthcare Technology transfer
Donatella Proto, Claudi Biffoli
- 15:50 Pathway to a patent for DL in colonoscopy
Elena De Momi
- 16:00 AI-based precision pathology: from research concept to medical device implemented in routine healthcare
Mattias Rantalainen
- 16:10 Digital innovation strategies for large-scale operationalization and implementation of clinical AI
Victor Savevski
- 16:20 Discussion
- 16:45 *Coffee Break*

PARALLEL SESSIONS - no CME

5A TECH SYMPOSIUM - no CME SESSION

Chairs: **Francesco Trovò, Laura Mazzeo**

- 17:00 Transforming Oncology Patient Journey with Agentic AI
Yin Cai

5B MEET THE EXPERTS - no CME SESSION

Moderator: **Narmin Ghaffari Laleh, Giovanni Scoazec**

- 17:00 How to build a carrier in AI in healthcare
Rudolf Fehrmann, Zeyu Gao, Anita Grigoriadis, Jana Lipkova, Vanja Miskovic, Alexander Pearson

5C IMPLEMENTATION AND CONNECTION OF AI IN CLINIC- no CME SESSION

Moderators: **TBD**

- 17:00 Healthcare Connectivity as Infrastructure: Linking Hospitals for AI Deployment
Marco Massari, Arsela Prelaj
- 17:10 Enabling Clinical Implementation or Data Linkage in Healthcare: Building Infrastructure for Clinical Use
Claes Lundstrom
- 17:20 Neurosurgery: Translating AI in Neurosurgery: From Algorithms to Operating Room
Francesco Meco

17:30 Clinical AI Deployment: Integrating Predictive Models and Generative Systems
Mireia Crispin Ortuzar

17:40 Discussion

SPECIAL PLENARY

Chairs: **Nicola Fusco, Vincenzo L'Imperio**

17:00 What will the future look like?
Daniel Truhn

17:30 End of Conference Day 1

18:00 General Assembly Meeting ESAC

May 8th, 2026

08:30 POSTER SESSION
Participants will present their posters

Moderators: **Filippo Pesapane, Leonardo Provenzano**

09:50 AI pros and cons: promises versus bottlenecks
Debate: Marco Gustav, Marcello Restelli

SESSION 6 plenary

ETHICS AND PATIENT-CENTERED RESEARCH

Chairs: **Helena Linardou, Marina Chiara Garassino, Alessandra Pedrocchi**

10:00 Patient autonomy, uncertainty human values, trust and distrust in an AI context
Delia Nicoara

10:15 AI in digital health, QoL and toxicity (e.g., ILD) in pancancer patients treated with immunotherapy
Jarushka Naidoo

10:30 Balancing clinical utility and privacy concerns in data
Fidelia Cascini

10:45 How to design ethical clinical trials using AI for Immunotherapy, target therapies
(e.g. EGFR, ALK, ROS1, RET etc) and ADCs
Arsela Prelaj

11:00 Discussion

11:10 **Coffee Break**

PARALLEL SESSIONS

SESSION 7A

CLINICAL IMPLEMENTATION OF AI IN ONCOLOGY

Chairs: **Alberto Traverso, Pietro Pinoli**

- 11:50 The promise of synthetic data: current evidence and limitations in the breast cancer setting
Oliver Diaz
- 12:05 Synthetic arms versus RWD arms versus control arms in trials
Debate: *Miriam Koopman, Rodrigo Dienstmann*
- 12:25 Multimodal synthetic data - how to generate images and omics in longitudinal fashion in breast and other cancers
Saverio D'Amico
- 12:40 Discussion
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SESSION 7B

MULTIMODAL AND MULTI-AI

Chairs: **Antonio Marra, Raquel Perez-Lopez**

- 11:50 VLMs for treatment prediction in ovarian and kidney cancer
Zeyu Gao
- 12:05 Toward Clinically Deployable AI models: Safeguards Against Distribution Shifts
Jana Lipkova
- 12:20 LLMs for target and drug discovery: a personalized therapy for every single patient
Matteo Sacco
- 12:40 Discussion
- 13:00 *Lunch Break*
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SESSION 8 plenary

MULTIOMICS AND FOUNDATION MODELS

Chairs: **Mireia Crispin Ortuzar, Giuseppe Curigliano**

- 14:00 Foundation models for multiomics and spatial omics applications in hematological diseases
Sizun Jiang
- 14:20 Pan-cancer multiomics science: how and when in the research and the clinical settings
Sohrab Shah

14:40 Technical and implementation challenges of AI in multi-omics research: cancers of unknown primary example
Julien Vibert

14:20 Discussion

SESSION 9 plenary

CLOSING SESSION AND PRIZES

Chairs: **Robert Lugowski, Luca Invernizzi, Marco Masseroli**

15:00 Agents in Clinical Practice
Danielle Bitterman

15:40 Poster Prize and ESAC Awards *Arsela Prelaj*

16:10 Nature Medicine in AI
Mattia Andreoletti

16:20 AI in 2040: the light and dark side
Jakob Nikolas Kather

16:30 GoodBye Words
Arsela Prelaj, Jakob Nikolas Kather, Presidents

FACULTY

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Isabella Wiest, Else Kröner Fresenius Center for Digital Health, Dresden, Germany